## Listing of Claims

Claims 1-9 (cancelled)

Claim 10 (new) A system for diagnosing and for configuring a network including a plurality of devices, the network configuration being based on end-to-end service or functional requirements, said system comprising:

a first requirements database for storing end-to-end service or functional requirements as intermediate abstractions representing the translation of the end-to-end or functional requirements;

a second configuration database;

a provisioning engine connected to said first requirements database and to said second configuration database for storing in said second configuration database detailed device configuration parameter values, each configuration parameter value relating to a setting of a device in the network;

a diagnosis engine connected to said first requirements database and said to said second configuration database for determining the consistency between the configuration parameters in said second configuration database and said intermediate abstractions in said first requirement database; and

means for issuing commands from said second configuration database to set respective devices in the network to the configuration parameter values in the configuration database.

Claim 11(new) A system for configuring a network including a plurality of devices, the network configuration being based on end-to-end service or functional requirements, said system comprising:

means for translating said end-to-end or functional requirements into a set of library requirements comprising intermediate abstractions representing the translation of the end-to-end or functional requirements;

a first requirements database for storing said intermediate abstractions;

a second configuration database for storing detailed device configuration parameter values based on said stored intermediate abstractions, each configuration parameter value relating to a setting on a device in the network; and

means for issuing commands from said second configuration data base to set respective devices in the network to the configuration parameter values in the configuration database, thereby establishing the end-to-end service or function for configuring the network.

Claim 12 (new) The system in accordance with claim 11 further comprising a processor responsive to said intermediate abstractions stored in said first requirements database for compiling said intermediate abstractions into said configuration parameter values for storing in said second configuration database.

Claim 13 (new) The system in accordance with claim 11 further comprising a processor that checks said stored configuration parameter values against said requirements to determine if there is inconsistency there between and permits storage of said configuration parameter values in said second configuration database only if there are no such inconsistencies determined.

Claim 14 (new) A method for configuring a network which includes a plurality of devices, said method comprising the steps of:

translating end-to-end service or functional requirements into a set of library requirements and storing said library requirements in a first requirements database as intermediate abstractions representing the translation of the end-to-end service or functional requirements;

based on the stored intermediate abstractions, storing in a second configuration database detailed device configuration parameter values, each configuration parameter value relating to a setting on a device in the network; and

issuing commands from said second configuration database to set respective devices in the network to the configuration parameter values in the configuration database, thereby establishing the end-to-end service or function for configuring the network.

Claim 15 (new) The method in accordance with claim 14 further comprising checking that the library requirements stored in said first requirements database are true for the particular configuration settings of said devices in said network and said step of storing said detailed device configuration values in said second configuration database occurring only if said checking step determined that said requirements are true.

Claim 16 (new) The method in accordance with claim 15 wherein said checking step occurs recursively, one requirement at a time.

Claim 17 (new) The method in accordance with claim16 further comprising the step of creating a record if said checking step determines that one of said requirements is not true.

Claim 18 (new) A system for diagnosing configuration errors in a network including a plurality of devices, the network configuration being based on end-to-end service or functional requirements, said system comprising:

a first requirements database for storing a set of library requirements comprising the translation of the end-to-end service or functional requirements;

a second configuration database for storing detailed configuration parameters, each configuration parameter relating to a setting on a device in the network;

a processor connected to said first requirements database and to said second configuration database for recursively determining the consistency between the configuration parameters in said second configuration database and the library requirements in said first requirements database; and

means coupled to said processor for creating a record of each inconsistency.

Claim 19 (new) A method for diagnosing configuration errors in a network including a plurality of devices, the network configuration being based end-to-end service or functional requirements, said method comprising the steps of:

storing in a first requirements database a set of library requirements comprising the translation of the end-to-end service or functional requirements;

storing detailed configuration parameters in a second configuration database, each configuration parameter relating to a setting on a device in the network;

recursively determining the consistency between the configuration parameters in said second configuration database and the library requirements in said first requirements database; and

creating a record of any inconsistency thus determined.